



## **BYB Series Industrial Butterfly Valves** **Gear Operated Only**



**2" to 24" Bodies - PVC, CPVC, PPL, and PVDF**  
**Disks - CPVC, PPL, and PVDF**



### **Designed for Performance and Flexibility**

Industrial Series Butterfly Valves from Hayward are specially designed to take into account application parameters encountered in larger size piping systems. The rugged, one piece body stands up to high flow rates and elevated stress conditions. The valve features a full face liner that eliminates the need for expensive flange gaskets. The valve itself is fully lined and the Type 410 stainless steel stem is completely isolated from the process media.

The valve's molded design makes for exceptional application flexibility. Because both the body and the disc can be molded in a variety of materials, it is easy and cost effective to assemble a valve that conforms to the requirements of special, demanding applications.

### **Easy Installation, Easy Operation**

Because these valves are significantly lighter than metal equivalents, installation is relatively easy and can often be accomplished by one person. Positive manual valve operation is ensured by the heavy duty, high torque output gear box. Removal of the gear box allows a variety of pneumatic and electric actuators to be installed on the large mounting pad. If a particular actuator does not mount directly to the valve stem, a variety of adapters and mounting accessories are available so that most actuators can be installed.

### **Replacement for Metal Valves**

All plastic construction means the valves will never stick, fail, or jam due to rust or corrosion – making them an excellent alternative to metal valves in many applications.

### **Features**

- Stainless Steel Stem
- Choice of FPM or EPDM Liners
- High Torque Gear Box
- Easily Modified for Unique Applications
- Replaces Metal Valves

### **Options**

- Actuation Available
- Type 316 SS and 304 SS Stems

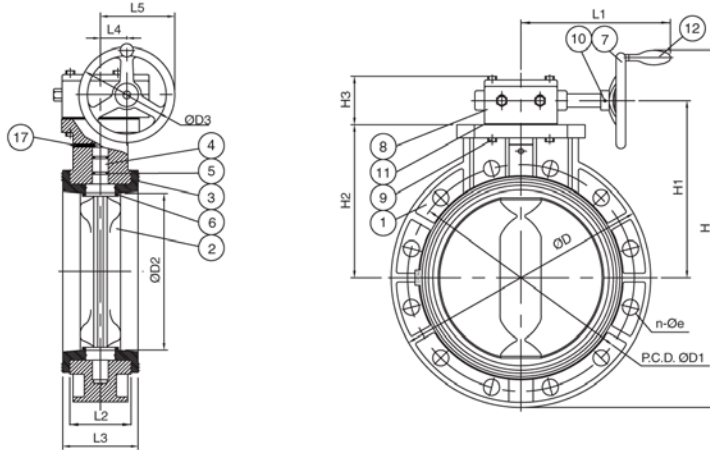
**Monarch Asia Pacific - Brisbane, Australia**  
**web: [www.monarchasiapacific.com.au](http://www.monarchasiapacific.com.au)**

**PSF Equipment - Bangkok, Thailand**  
**web: [www.psfthailand.com](http://www.psfthailand.com)**



## Technical Information

**Gear Box Operator**



**Parts List**  
**Gear Box Operator**  
**Butterfly Valves**

- |                  |                  |
|------------------|------------------|
| 1. Body          | 10. Spring Pin   |
| 2. Disc          | 11. Packing      |
| 3. Seat Seal     | 12. Small Handle |
| 4. Stem          | 13. Key          |
| 5. Stem O-Ring   | 14. Seal         |
| 6. Disc O-Ring   | 15. Metal Stat   |
| 7. Handwheel     | 16. Insert Nut   |
| 8. Gear Box      | 17. Pin          |
| 9. Bolt & Washer |                  |

### Dimensions - Inches / Millimeters

| Size       | D1          | n-Oe  | D           | D2            | D3          | H             | H1          | H2           | H3          | L1            | L2           | L3          | L4          | L5          |
|------------|-------------|-------|-------------|---------------|-------------|---------------|-------------|--------------|-------------|---------------|--------------|-------------|-------------|-------------|
| 2 / 50     | 4.76 / 121  | 4-19  | 6.50 / 165  | 2.22 / 56.5   | 6.26 / 159  | 11.30 / 287   | 4.92 / 125  | 4.06 / 103   | 2.09 / 53   | 5.51 / 140    | 1.36 / 34.5  | 1.69 / 43   | 1.63 / 41.5 | 4.76 / 121  |
| 2-1/2 / 65 | 5.51 / 140  | 4-19  | 7.28 / 185  | 2.74 / 69.5   | 6.26 / 159  | 12.09 / 307   | 5.31 / 135  | 4.45 / 113   | 2.09 / 53   | 5.51 / 140    | 1.46 / 37    | 1.81 / 46   | 1.63 / 41.5 | 4.76 / 121  |
| 3 / 80     | 5.98 / 152  | 4-19  | 7.87 / 200  | 3.13 / 79.5   | 6.26 / 159  | 12.17 / 309   | 5.39 / 137  | 4.53 / 115   | 2.09 / 53   | 5.51 / 140    | 1.46 / 37    | 1.81 / 46   | 1.63 / 41.5 | 4.76 / 121  |
| 4 / 100    | 7.52 / 191  | 8-19  | 9.02 / 229  | 4.04 / 102.5  | 6.26 / 159  | 13.84 / 351.5 | 5.79 / 147  | 5.33 / 135.5 | 2.09 / 53   | 5.51 / 140    | 1.85 / 47    | 2.20 / 56   | 1.63 / 41.5 | 4.76 / 121  |
| 6 / 150    | 9.49 / 241  | 8-22  | 11.22 / 285 | 6.02 / 153    | 7.95 / 202  | 18.23 / 463   | 8.70 / 221  | 6.97 / 177   | 3.05 / 77.5 | 11.20 / 284.5 | 2.44 / 62    | 2.78 / 70.5 | 2.36 / 60   | 6.34 / 161  |
| 8 / 200    | 11.73 / 298 | 8-22  | 13.50 / 343 | 7.99 / 203    | 7.95 / 202  | 20.67 / 525   | 10.00 / 254 | 8.27 / 210   | 3.05 / 77.5 | 11.20 / 284.5 | 2.99 / 76    | 3.35 / 85   | 2.36 / 60   | 6.34 / 161  |
| 10 / 250   | 14.25 / 362 | 12-25 | 16.18 / 411 | 10.04 / 255   | 7.95 / 202  | 23.27 / 591   | 11.26 / 286 | 9.53 / 242   | 3.05 / 77.5 | 11.20 / 284.5 | 3.76 / 95.5  | 4.29 / 109  | 2.36 / 60   | 6.34 / 161  |
| 12 / 300   | 17.01 / 432 | 12-25 | 19.29 / 490 | 12.19 / 309.5 | 9.84 / 250  | 27.80 / 706   | 13.54 / 344 | 11.89 / 302  | 2.99 / 76   | 12.99 / 330   | 4.59 / 116.5 | 5.24 / 133  | 2.36 / 60   | 7.28 / 185  |
| 14 / 350   | 18.74 / 476 | 12-29 | 20.87 / 530 | 14.17 / 360   | 9.84 / 250  | 28.82 / 732   | 13.46 / 342 | 11.81 / 300  | 3.07 / 78   | 12.99 / 330   | 4.45 / 113   | 5.00 / 127  | 2.36 / 60   | 7.28 / 185  |
| 16 / 400   | 21.26 / 540 | 16-29 | 23.62 / 600 | 15.65 / 397.5 | 11.81 / 300 | 34.21 / 869   | 16.73 / 425 | 13.78 / 350  | 4.72 / 120  | 13.90 / 353   | 6.00 / 152.5 | 6.57 / 167  | 3.19 / 81   | 9.09 / 231  |
| 18 / 450   | 22.76 / 578 | 16-32 | 24.80 / 630 | 17.81 / 452.5 | 11.81 / 300 | 35.83 / 910   | 17.52 / 445 | 14.57 / 370  | 4.61 / 117  | 13.90 / 353   | 6.44 / 163.5 | 7.05 / 179  | 3.19 / 81   | 9.09 / 231  |
| 20 / 500   | 25.00 / 635 | 20-32 | 27.40 / 696 | 19.76 / 502   | 15.98 / 406 | 40.83 / 1037  | 19.13 / 486 | 16.14 / 410  | 5.63 / 143  | 15.35 / 390   | 6.69 / 170   | 7.44 / 189  | 4.72 / 120  | 12.72 / 323 |
| 24 / 600   | 29.8 / 750  | 20-35 | 32.01 / 813 | 23.74 / 603   | 15.98 / 406 | 44.00 / 1120  | 20.20 / 513 | 18.31 / 465  | 5.24 / 133  | 13.78 / 350   | 7.52 / 191   | 8.27 / 210  | 5.31 / 135  | 13.18 / 335 |

### Selection Chart

| Size    | Body Material           | Disc Material     | Seals       | Operators | Pressure Rating          |
|---------|-------------------------|-------------------|-------------|-----------|--------------------------|
| 2"-10"  | PVC, CPVC, PPL and PVDF | CPVC, PPL or PVDF | EPDM or FPM | Gearbox   | 150 PSI @ 70°F Non-Shock |
| 12"     | PVC, CPVC, PPL and PVDF | CPVC, PPL or PVDF | EPDM or FPM | Gearbox   | 100 PSI @ 70°F Non-Shock |
| 14"-16" | PVC, CPVC, PPL and PVDF | CPVC, PPL or PVDF | EPDM or FPM | Gearbox   | 86 PSI @ 70°F Non-Shock  |
| 18"     | PVC, CPVC, PPL and PVDF | CPVC, PPL or PVDF | EPDM or FPM | Gearbox   | 72 PSI @ 70°F Non-Shock  |
| 20"-24" | PVC, CPVC, PPL and PVDF | CPVC, PPL or PVDF | EPDM or FPM | Gearbox   | 51 PSI @ 70°F Non-Shock  |

### Operating Temperature/Pressure

